

**REMARKS**

By this reply, Claim 30 has been amended to incorporate the features of Claim 34, which has been canceled. Claims 30-33 and 35-45 are pending in the application. The claim amendment (a) does not raise the issue of new matter, (b) does not raise any new issue that would require further search and/or consideration, and (c) does not add any additional claims, and (d) places the application in better condition for appeal. Therefore, it is respectfully requested that the amendment be entered. Reconsideration and allowance are respectfully requested in light of the following remarks.

**First Rejection Under 35 U.S.C. § 102**

Claims 30, 32-35, 44 and 45 stand rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 3,968,346 to Cooksley. The reasons for the rejection are stated at pages 2-3 of the Official Action. The rejection is respectfully traversed.

Claim 30 recites an aerosol generator comprising, *inter alia*, "a fluid passage between a first layer and a second layer, the first layer having a surface bonded to a surface of the second layer, and the first layer and the second layer at least partially defining the fluid passage" (emphasis added). As described in the paragraph bridging pages 5-6 of the present specification, the first and second layers can be, for example, adhesively bonded, metallurgically bonded, or mechanically bonded. In these exemplary techniques, the layers are attached together by the bond.

Cooksley does not disclose or suggest an aerosol generator including all of the features recited in Claim 30. Cooksley discloses a tankless heater for heating water. As indicated in the marked-up version of Figure 1 of Cooksley shown at page

3 of the Official Action, the Examiner considers the jacket or casing 30 to be a “first layer” and the tube 12 to be a “second layer.” The Official Action states that the “first layer” and “second layer” are bonded together, as indicated by the term “bonded” in marked-up Figure 1. Applicants respectfully disagree. As shown in Figure 3 of Cooksley, the tube 12 includes flanges 22, 24 at its opposed ends. As disclosed by Cooksley, “[f]langes 22, 24 tightly fit within the ends of the tubular casing 30, and closure caps 32, 34 are applied to the ends of the casing” (column 2, lines 41-43). Accordingly, Cooksley discloses that the flanges 22, 24 of the “second layer” tightly fit within the ends of the “first layer.” The closure caps 32, 34 are applied to the ends of the casing 30 and surround the casing 30 and tube 12. Cooksley does not disclose or suggest that the tube 12 is bonded (i.e., attached) to the surrounding tubular casing 30.

Accordingly, Cooksley's tankless heater does not include the combination of features recited in Claim 30, which is thus patentable over Cooksley. Claims 32, 33 and 35, which depend from Claim 30, are also patentable over Cooksley for at least the same reasons as those for which Claim 30 is patentable.

Cooksley also does not disclose or suggest an aerosol generator including the combination of features recited in independent Claim 44. Claim 44 recites an aerosol generator comprising, *inter alia*, “a first layer and a second layer” and “a fluid passage between the first layer and the second layer, the fluid passage having an inlet at one end and an outlet downstream of the inlet end, the fluid passage being defined by opposed flat surfaces of the first layer and the second layer from the inlet to the outlet, the flat surfaces being bonded together” (emphasis added). As discussed above, Cooksley does not disclose or suggest a fluid passage being

defined by opposed surfaces of a first layer and a second layer that are bonded to each other. Furthermore, Cooksley does not disclose or suggest a fluid passage defined by opposed flat surfaces of a first layer and a second layer from the inlet to the outlet of the fluid passage. In contrast, Cooksley's "first layer" (i.e., casing 30) and "second layer" (i.e., tube 12) are cylindrical shaped. Thus, opposed surfaces of these layers are not flat from the "inlet" to the "outlet" of the "flow passage," as indicated in the marked-up version of Figure 1. Applicants further note that the outer surface of the tube 12 is twisted or spirally corrugated so as to form helical flow passages around the tube 12 (column 2, line 36).

Accordingly, Cooksley's tankless heater also does not include the combination of features recited in Claim 44. Thus, the aerosol generator recited in Claim 44 is patentable over Cooksley. Claim 45, which depends from Claim 44, is also patentable over Cooksley for at least the same reasons as those for which Claim 44 is patentable.

Therefore, withdrawal of the rejection is respectfully requested.

### **Second Rejection Under 35 U.S.C. § 102**

Claims 30, 32, 33, 35, 36, 38, 39 and 41-45 stand rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,393,212 to Hutchinson. The reasons for the rejection are stated at pages 4-5 of the Official Action. The rejection is respectfully traversed.

Claim 30 has been amended to include the features of Claim 34. As Claim 34 is not included in this ground of rejection, Claim 30 is patentable over Hutchinson. Claims 32, 33 and 35, which depend from Claim 30, are thus also patentable over Hutchinson.

Hutchinson discloses a steam generating system. Hutchinson also does not disclose or suggest an aerosol generator including the combination of features recited in independent Claim 36. Claim 36 recites an aerosol generator comprising, *inter alia*, "a pressure sensor sensitive to pressure drops for actuating the heater via circuitry to volatilize the fluid in the fluid passage." The Official Action contends that Hutchinson discloses the claimed pressure sensor, citing to column 12, lines 9-11 of Hutchinson. However, Hutchinson does not disclose such a pressure sensor at this location, or any other location. Applicants note that Hutchinson discloses that the steam generating cylinder or vessel 10 includes a pressure control valve 48 to prevent a runaway high pressure burst (column 10, lines 7-10). As also shown in Figure 4, the vessel 10 includes a pressure transducer 90 for monitoring steam pressure. The system will be shut down if the steam pressure exceeds a certain pressure range (column 10, lines 32-35 and column 10, lines 50-52). Hutchinson does not disclose a pressure sensor sensitive to pressure drops for actuating a heater via circuitry to volatilize fluid in a fluid passage, as recited in Claim 36.

Accordingly, the aerosol generator recited in Claim 36 is also patentable over Hutchinson. Claim 38, 39 and 41-43, which depend from Claim 36, are also patentable over Hutchinson for at least the same reasons as those for which Claim 36 is patentable.

Hutchinson also does not disclose or suggest an aerosol generator including the combination of features recited in independent Claim 44. Claim 44 recites an aerosol generator comprising, *inter alia*, "a fluid passage between the first layer and the second layer, the fluid passage having an inlet at one end and an outlet downstream of the inlet end, the fluid passage being defined by opposed flat

surfaces of the first layer and the second layer from the inlet to the outlet, the flat surfaces being bonded together" (emphasis added). The Official Action states that Hutchinson discloses each of the features recited in Claim 44. As indicated in the marked-up version of Figure 4 of Hutchinson shown at page 5 of the Official Action, the Examiner considers the chamber 10 to be a "first layer" and the heating body 15 to be a "second layer."

The Official Action states that the "first layer" has a surface bonded to a surface of "second layer" of Hutchinson's steam generator. The marked-up version of Figure 4 of Hutchinson indicates the location of this alleged bond by the term "bonded." Hutchinson's "fluid passage" indicated by the term "passage" in the marked-up version of Figure 4 is not "defined by opposed flat surfaces of the first layer and the second layer from the inlet to the outlet" from the "inlet" to the "outlet" also indicated in this figure. In contrast, the "first layer" 10 and the "second layer" 15 of the steam generator are cylindrical shaped as shown in Figure 6 of Hutchinson. Accordingly, because each of the "first layer" 10 and the "second layer" 15 has a round outer surface, but not a flat surface, Hutchinson's "fluid passage" is defined by opposed round surfaces of the "first layer" and "second layer" along a substantial portion of the length of the passage from the "inlet" to the "outlet" indicated in the marked-up version of Figure 4.

Accordingly, Hutchinson also does not disclose or suggest the combination of features recited in Claim 44, which is thus also patentable over Hutchinson. Claim 45 depends from Claim 44 and thus is also patentable over Hutchinson for at least the same reasons as those for which Claim 44 is patentable.

Therefore, withdrawal of the rejection is respectfully requested.

**Rejection Under 35 U.S.C. § 103**

Claims 31 and 37 stand rejected under 35 U.S.C. § 103(a) over Cooksley or Hutchinson in view of U.S. Patent No. 5,743,251 to Howell et al. ("Howell"). The reasons for the rejection are stated at page 5 of the Official Action. The rejection is respectfully traversed.

The Official Action acknowledges that each of Cooksley and Hutchinson fails to suggest the subject matter recited in Claims 31 and 37. However, the Official Action states that Howell cures the deficiencies of Cooksley and Hutchinson with respect to these claims.

Applicants submit that the combination of Cooksley and Howell does not suggest the aerosol generator recited in Claim 30. Accordingly, Claim 31, which depends from Claim 30, is also patentable over these references for at least the same reasons that Claim 30 is patentable. Claim 36 has not been rejected over Cooksley. Accordingly, Applicants assume that the rejection of Claim 37, which depends from Claim 36, over the combination of Cooksley and Howell was inadvertent.

As discussed above, Claim 30 has been amended to include the features of Claim 34, which was not rejected over Hutchinson. Accordingly, the rejection of Claim 31 over the combination of Hutchinson and Howell is moot. Applicants also submit that the combination of Hutchinson and Howell does not suggest the aerosol generator recited in Claim 36. Accordingly, Claim 37, which depends from Claim 36, is also patentable over these references for at least the same reasons that Claim 36 is patentable.

Therefore, withdrawal of the rejection is respectfully requested.

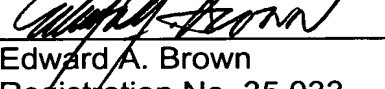
**Conclusion**

For the foregoing reasons, allowance of the application is respectfully requested. Should the Examiner have any questions concerning this response, Applicants' undersigned representative can be reached at the telephone number given below.

Respectfully submitted,

BUCHANAN INGERSOLL P.C.

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